

**REMARKS**

Claims 1 through 12 are pending in the application.

Claims 1, 10 and 11 have been amended to clarify that the beverages of the invention advantageously include xylooligosaccharide(s) represented by Formula (I). Support for this amendment can be found in the Application-as-filed, for example on Page 5, lines 4 through 7.

Claim 1 has also been amended to reflect that beverages in accordance with the invention may advantageously include xylooligosaccharide(s) in an amount ranging from 0.01 to 2 % by weight. Support for this amendment can be found in the Application-as-filed, for example on Page 5, lines 18 through 21.

Claim 2 has been cancelled, as its subject matter has been incorporated into the foregoing claims.

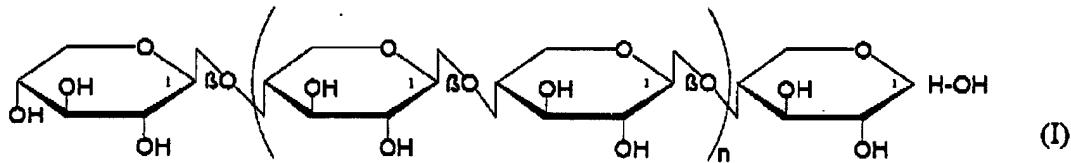
Claim 4 has been amended to reflect that beverages in accordance with the invention may advantageously include xylooligosaccharide in an amount ranging from 0.01 to 0.9 % by weight. Support for this amendment can be found in the Application-as-filed, for example on Page 5, lines 18 through 21.

Claim 12 has been cancelled.

Reexamination and reconsideration of this application, withdrawal of all rejections, and formal notification of the allowability of the pending claims are earnestly solicited in light of the remarks which follow.

35 USC § 112

Claims 1 through 12 stand rejected over the recitation "wherein said at least one xylooligosaccharide is not xylose." Applicants respectfully submit that the noted recitation is fully supported within the Application-as-filed. The Examiner's attention is kindly directed to the Application-as-filed on Page 5, lines 4 through 8, noting that xylooligosaccharides used in the inventive beverages are preferably compounds having the Formula (I) below:



$n = DP = 0-3$   
DP = degree of polymerization

The Examiner will kindly note that the smallest molecule possible within Formula (I) occurs when  $n = 0$ , which is xylobiose. The Examiner's attention is kindly directed to the Application-as-filed on Page 5, lines 12 through 15 (noting the formation of xylobiose when  $n = 0$ ). Accordingly, xylose, which has the structure  $C_5H_{10}O_5$ , is clearly excluded from Formula (I).

Applicants thus respectfully submit that the Application-as-filed conveyed with reasonable clarity to one skilled in the art that Applicants were in possession of the claimed invention as of the filing date sought. Applicants further respectfully submit that the subject matter of the claims need not be described literally within the remainder of the specification; i.e. word-for-word correspondence is not required. MPEP 2163.02.

However, solely to advance prosecution of the case, the term "wherein said at least one xylooligosaccharide is not xylose" has been replaced with the above noted Formula (I). As noted above, support for this amendment can be found in the Application-as-filed.

Accordingly, Applicants respectfully request withdrawal of this rejection.

*The Claimed Invention is Patentable in Light of the Art of Record*

Claims 1 through 12 continue to stand rejected over JP 10337164 A ("JP 164"); JP 09248153 A ("JP 153") and JP 08056607A ("JP 607") to Shimizu (collectively referred to as "Shimizu") in view of DE 19653354 C1 to Jager et al ("Jager").

It may be useful to briefly consider the invention as recited in the claims before addressing the merits of the rejection. The claims recite beverages comprising at least one xylooligosaccharide having the Formula (I) and at least one intense sweetener. The xylooligosaccharide is advantageously present within the beverage in amounts ranging from 0.01 to 2 % by weight, as recited in the amended claims.

Applicants have determined that xylooligosaccharides having the recited formula significantly improve the overall taste profile of beverages containing intense sweeteners, even at the relatively small doses recited within the claims. In contrast to the opinion urged within the outstanding Office Action, such results are altogether unexpected.

The impetus of Shimizu is a specific mixture of particular, required xylooligosaccharides as a sugar replacement within beverages to produce less sweet beverages that do not induce tooth decay. The Examiner's attention is kindly directed to JP 164, in which Shimizu notes that the use of "a xylooligosaccharide having a specific sugar composition" to form beverages having "reduced sweetness" that further do not cause tooth decay. Shimizu clearly requires xylose within his specific xylooligosaccharide composition. In fact, Shimizu's xylooligosaccharide

mixtures may contain up to 55 % xylose. Although noting the exact composition of the xylooligosaccharide mixture, Shimizu's English Abstracts are silent as to the total amount of the xylooligosaccharide mixture used within the beverages.

Applicants respectfully reiterate that Shimizu does not teach or suggest the claimed invention, considered either alone or in combination with the art of record. Shimizu does not teach or suggest beverages comprising at least one xylooligosaccharide other than xylose and at least one intense sweetener. In fact, Shimizu, considered in its entirety, teaches away from the recited absence of xylose by specifically requiring its presence.

Applicants further submit that Shimizu teaches away from the recited intense sweeteners by using its xylooligosaccharide composition alone to produce mildly sweet beverages. There would not have been any motivation within Shimizu to have included an intense sweetener within mildly sweet beverages already containing an artificial sweetener composition (i.e. Shimizu's xylooligosaccharide composition).

And Shimizu, silent as to the amount of its xylooligosaccharide composition, most certainly does not teach or suggest recited inclusion of the xylooligosaccharide of Formula (I) within beverages in amounts ranging from 0.01 to 2 % by weight.

Accordingly, Applicants respectfully submit that the claimed invention is patentable in light of Shimizu, considered either alone or in combination with Jager.

Jager is merely directed to the use of fructooligosaccharides, such as inulin and oligofructose, to increase the sweetening power of an acesulfame K/aspartame mixture. Jager indicates that the fructooligosaccharides may be present in amounts ranging from 2.5 to 5.0 % within the mixture. (Page 4, lines 29 through 32).

Consequently, Jager does not teach or suggest beverages comprising at least one xylooligosaccharide, and most certainly not such beverages in which the xylooligosaccharide is not xylose. In fact, considered in its entirety Jager teaches away from the use of the recited xylooligosaccharides altogether by instead disclosing the incorporation of fructooligosachharides.

Nor does Jager teach or suggest beverages including the recited amounts of xylooligosaccharide. Rather, it is known in the art that even greater amounts of fructooligosaccharides than disclosed in Jager may be required within foodstuffs to achieve the desired level of activity, such as amounts of up to 10 % by weight. The Examiner's attention is kindly directed to the Application-as-filed on Page 3, line 27 through Page 4, line 1. In that regard, Applicants have shown that lesser amounts of fructooligosaccharides, such as 2 wt%, can actually be detrimental to the overall taste impression. Applicants have more specifically determined that beverages incorporating intense sweeteners and fructooligosaccharide in an amount of 2 wt % are perceived as having decreased body and increased drying properties in comparison to beverages containing intense sweeteners alone. The Examiner's attention is kindly directed to the Application-as-filed on Page 9, lines 1 through 15.

Consequently, Jager further does not teach or suggest the recited presence of xylooligosaccharides in amounts ranging from 0.01 to 2 wt%. Thus Jager most certainly does not teach or suggest the incorporation of xylooligosaccharides in amounts ranging from about 0.01 to 0.9 wt %, as recited in Claim 4. Jager instead teaches away from such amounts by incorporating significantly greater amounts of saccharides into his compositions, such as amounts ranging from 2.5 to 5.0 %.

Applicants continue to respectfully submit that there would have been no motivation to have combined these references. The previous rejections are based upon picking and choosing elements from the prior art using the instant specification as the guide for that selection process. The present invention resides in the selection of particular elements, i.e. the xylooligosaccharide

of Formula (I) in the recited amounts, from a wide number of possibilities to solve a specific problem, i.e. the provision of full-bodied character and a balanced sweetness-acidity ratio to beverages containing intense sweetener(s).

Shimizu merely discloses the use of a particular xylooligosaccharide composition as an artificial sweetner. It does not mention its combinaiton with an additional, intense sweetener. Nor would there have been any motivation to have further incorporated the recited intense sweetener(s) into the mildly sweet beverages of Shimizu. Jager is then used to supply elements missing from Shimizu.

However, even if combined (which Applicants submit should not be done), the present invention would not result. Applicants respectfully submit that the references must be considered as a whole, for all that they teach. MPEP 2141.02 Shimizu expressly requires the presence of xylose. Jager teaches the incorporation of fructooligosaccharides, not xylooligosaccharides. Accordingly, both Shimizu and Jager teach away from the recited xylooligosaccharides that are not xylose.

Jager further discloses the use of his fructooligosaccharides in amounts ranging from 2.5 to 5.0 %. Conventional wisdom at the time the Application was filed (as evidenced by Applicants own testing) indicated that the incorporation of an even lesser amount of fructooligosaccharide than noted within Jager, i.e. 2.0 wt %, was detrimental to the overall taste impression of beverages containing intense sweeteners. Thus both Jager and conventional wisdom clearly teach away from the claimed amounts.

Consequently, neither Shimizu or Jager, alone or in combination, teach or suggest the recited beverages comprising intense sweetener(s) and at least one xylooligosaccharide that is not xylose in which the xylooligosaccharide is present in an amount from 0.01 to 2.0 %. And the combination most certainly does not teach or suggest the advantageous embodiments reflected in Claim 4, reciting the presence of xylooligosaccharide in an amount ranging from 0.01 to 0.9%.

In fact, it is altogether unexpected that the recited moderate amounts of xylooligosaccharide impart the beneficial full-bodied character and balanced sweetness-acidity ratio to beverages incorporating intense sweetener(s).

Accordingly, Applicants respectfully submit that Claims 1 through 11 are patentable in light of the art of record, considered either alone or in combination.

**Consideration of Previously Submitted Information Disclosure Statement**

It is respectfully reiterated that an initialed copy of the PTO Form SB/08A submitted with Applicants' Information Disclosure Statement filed April 23, 2003 has not been returned to Applicants' representative with the Office Action. Accordingly, it is requested an initialed copy of the Form SB/08A be forwarded to the undersigned with the next communication from the PTO. Copies of the cited references were provided at the time of filing the original Information Disclosure Statement , and, therefore, no additional copies of the references are submitted herewith. Applicants will be pleased to provide additional copies of the references upon the Examiner's request if it proves difficult to locate the original references.

**CONCLUSION**

It is respectfully submitted that Applicants have made a significant and important contribution to the art, which is neither disclosed nor suggested in the art. It is believed that all of pending Claims 1 through 11 are now in condition for immediate allowance. It is requested that the Examiner telephone the undersigned if any questions remain to expedite examination of this application.

It is not believed that extensions of time or fees are required, beyond those which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time and/or fees are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required is hereby authorized to be charged to Deposit Account No. 50-2193.

Respectfully submitted,

*K. Schweitzer*

Klaus Schweitzer  
See attached Limited Recognition Form  
Under 37 CFR§10.9(b)  
ProPat, L.L.C.  
425-C South Sharon Amity Road  
Charlotte, NC 28211-2841  
Telephone: 704-365-4881  
Facsimile: 704-365-4851

**CERTIFICATE OF FACSIMILE TRANSMISSION**

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office at facsimile number (703) 872-9306 on February 24, 2005.

*Claire Wygand*  
Ms. Claire Wygand